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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/907,687	08/08/97	SABOURIN M	AZNDR/346/US

IM62/0314

ALIX, YALE & RISTAS, LLP
750 MAIN STREET
HARTFORD CT 06103-2721

EXAMINER	
ALVO,M	
ART UNIT	**PAPER NUMBER**
1731	22

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/907,687	SABOURIN
Examiner	**Group Art Unit**
Steve Alvo	1731

☒ Responsive to communication(s) filed on *Jan 10, 2001*.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *2, 7, 15-27, 29, and 31-37* is/are pending in the application.

Of the above, claim(s) *15-22* is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *2, 7, 23-27, 29, and 31-37* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Since this application has been designated as a continued prosecution application (CPA) of application number 08/907,687, the restriction requirement and the election made in Paper Nos. 7 and 10 carry over. Accordingly, claims 15-22 are withdrawn from further consideration, as being directed to a non-elected invention.

Claims 2, 7, 23-27, 29 and 31-37 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The terms "15 to 25 psig" and "above 100 deg. C" were not originally disclosed. Applicant states that in paper plants that pressures are given in psig. This or may not be true when units are not given. Every time the pressure was given with units it was given in "psi" not "psig", see instant specification, page 3, lines 25-27. The term "psi" conventionally is used for atmospheric pressure not gauge pressure, which is normally given as psig. Also the term "above 100 deg. C" includes all temperatures above 150 deg. C. These values are outside the disclosed range of 90-150 deg, C, e.g. page 3, lines 13-15.

The arguments with respect to the steam temperatures are not convincing as it would have been obvious to use higher temperatures to decrease the conditioning times. The use of temperatures above 100 deg. C is taught by PRUSAS. No criticality has been shown for the newly claimed high temperatures and pressures compared to the disclosed lower temperatures, e.g. the disclosed 10 psi and 90 deg. C.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 29, 2, 23-26, 31, 32 and 34 are rejected under 35 U.S.C. 103(a) as obvious over CEDERQUIST et al with or without PRUSAS et al or EP 0 034 560 or MINTON.

CEDERQUIST et al teaches conditioning lignocellulosic fiber material with saturated steam at a temperature of 90-100 °C and at atmospheric pressure (14.7 psi.), compressing the material to remove water to a dryness of at least 50%, subsequent to the step of compressing preheating the material in an environment of saturated steam at a temperature of 130-200 °C. It is noted that the instant process can operate at pressures as low as 10 psi (see specification, page 3, line 15). A temperature of 200 °C would be above the glass transition temperature. It would obvious to use a compression ratio necessary to obtain the desired moisture in the pulp. It is well known that higher temperatures and pressures reduce reaction times. It would have been obvious to increase the pressure and temperature of the conditioning step to reduce the treatment time. Applicant uses the same type of apparatus to compress and destructure the fibers, e.g. a screw press, used by CEDERQUIST et al. The "destructuring the fibers without significant breakage across grain boundaries" is a direct result of the "conditioning" of the fibers. The same

"conditioning" is taught by the applied art. At best Applicant is optimizing the "conditioning" of the prior art. There is a reasonable expectation that the conditioning of the prior art would yield a feed material having the desired amount of destructuring. *In re O'Farrel*, 7 USPQ2d 1673, 1680-81. In any event, it is well settled that an artisan with ordinary skill would have found it obvious to determine workable or even optimum values for an art recognized, result effective parameter, such as the proper amount of compression, *In re Boesch*, 205 USPQ 215, 219; *In re Aller*, 105, USPQ 233, 235. If the compression ratio is not obvious over CEDERQUIST et al, then the use of a compression ratio of at least 4:1 is taught by PRUSAS et al (column 4, lines 41-43 and column 8, lines 17-23) or EP 0 034 560 or MINTON. It would have been obvious to compress the material of CEDERQUIST et al in the manner taught by PRUSAS et al or EP 0 034 560 (column 3, lines 21-23) or MINTON (column 3, lines 17-24) to prepare the fibers for refining by reducing the moisture content and/or destructuring the fibers. It would have been especially obvious to use higher presteaming temperatures, e.g. above 100 deg. C, as such is taught by PRUSAS (column 4, lines 41-49). >100°C 120 - 160 °C

Claims 7, 27, 33 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over CEDERQUIST et al with or without PRUSAS et al or MINTON as applied to claim 29 above, and further in view of EP 0 034 560.

EP 0 034 560 teaches pretreating the lignocellulosic material with steam prior to compression and refining in the same manner taught by CEDERQUIST et al. CEDERQUIST et al is silent as to the time of treatment, while EP 0 034 560 teaches steam pretreatment using the

same temperature 100 °C and pressure atmospheric as CEDERQUIST et al. It would have been obvious to use the same time for pretreatment for CEDERQUIST et al as taught by EP 0 034 560, e.g. 60 minutes (page 5, line 4) as they are performing the same steam pretreatment.

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Any inquiry concerning this communication or earlier communications from the **primary examiner** should be directed to **Steve Alvo** whose telephone number is **(703) 308-2048**. The Examiner can normally be reached on Monday - Friday from **6:00 AM - 2:30 PM** (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stanley Silverman, can be reached on 703-308-3837.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Group receptionist** whose telephone number is **(703) 308-0661**.

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MSA
March 13, 2001

STEVE ALVO
PRIMARY EXAMINER
ART UNIT 1731